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| 09/826,070      | 04/04/2001  | Jeffrey D. Messerly  | END-0736            | 4524             |

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EXAMINER

ROBERTS, PAUL A

| ART UNIT | PAPER NUMBER |
|----------|--------------|
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3731

DATE MAILED: 06/11/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/826,070

Applicant(s)

MESSERLY, JEFFREY D.

Examiner

Paul A Roberts

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 April 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 19-26 is/are pending in the application.
- 4a) Of the above claim(s) 19,20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 21-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 April 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2. 6) ☐ Other:

*Election/Restrictions*

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 19-20, drawn to an end effector, classified in class 606, subclass 172.
- II. Claim 21-26, drawn to a waveguide, classified in class 606, subclass 169.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because the combination II does not require a presence of a functional asymmetry or an end effector. The subcombination has separate utility such as it can be used for the head of an ultrasonic toothbrush.

Because these inventions are distinct for the reasons given above and the search required for Group I is not required for Group II, restriction for examination purposes as indicated is proper.

During a telephone conversation with Mr. Verne on May 16 a provisional election was made without traverse to prosecute the invention of group II, claims 21-26. Affirmation of this election must be made by applicant in replying to this Office action. Claim 19-20 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

*Claim Rejections - 35 USC § 112*

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claims 21-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The waveguide is item 179 in figure 23 of the applicant's device. The applicant alleges that the blade (88) comprises element 202, page 18, lines 30-34. The blade, according figure 23, element 88, clearly does not comprise a curved portion or a balance portion. Further the waveguide does not actually comprise element 88, rather it is attached to element 88. Additionally, the 'balance portion' is not mentioned in the specification. If the element is labeled in the specification under a different name, applicant should amend the claim so that the names are the same. Applicant should also recite the item number of the balance portion.
2. Regarding claim 23, applicant says in claim 21 that the treatment portion comprises a balance portion. Yet in claim 23, the applicant states the balance portion extends to a point proximal to the treatment portion. It is not clear how if element A comprises element B, element B can extend to point proximal of element A.
3. Regarding claim 26, the source of the balance asymmetry appears to be caused by the different depths of the first and second cuts as shown in figure 35a. However, the applicant has claimed a separate balance asymmetry in addition to the two cuts. The specification and drawings do not support this feature. Also, the applicant should label the element 'balance asymmetry' in the drawings and give it a number in the specification.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 21-24 and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Huitema US 6117152.
5. Regarding 21-23, as best understood, Huitema discloses a waveguide 50 comprising a blade 56 a distal portion (right side of the notch 59) and a proximal portion left side of the notch, a curved treatment portion right portion of the figure (see first attached diagram). A balance portion is labeled. The notch provides the asymmetry. Claims 21 and 23 are rejected under different interpretations of figure 3. The first attached figure is relevant to claims 21 and 22, while the second attached figure is relevant to claim 23.
6. Regarding claims 22, the balance portion extends from the distal tip of the blade to a point inside the treatment portion.
7. Regarding claim 23, though it is not clear how the balance portion and treatment portion are connected, as best understood, the Huitema reference discloses this feature. The second attached diagram shows the new relationship between the balance portion and the treatment portion.
8. Regarding claim 24, a handle 30 is disclosed.

Regarding claim 26, the Huitema reference discloses a balanced blade 58 with a waveguide 50, a distal and proximal end (right and left side of figure 3 respectively), and a treatment portion (see first attached drawing). Notch 59 can be formed by two cuts (one in a quarter circle to right and one in a quarter circle to the left.) Each cut forms two sides. The intended use of the notch of Huitema is to provide a cutting surface for the tool. A recitation of the intended use of the claimed invention “the balanced asymmetry is positioned to counter torque” must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. The notch 59 is capable of countering torque created by its own presence and position on the blade.

9. Claim 21-23, and 26 are rejected under 35 U.S.C. 102(e) as being anticipated by Beaupre US 6283981.

10. Regarding claim 21, Beaupre discloses a waveguide (figure 2) comprising a blade (28 and 26) with a distal and proximal end, a treatment portion (26) comprising a balance portion (32 and 37), which is a balance asymmetry. The purpose of the balance asymmetry is to counter torque create by the curve near 37 (col. 2, 35-60).

11. Regarding claims 22 and 23, the balance portion extends from the distal end of the blade to a point inside the treatment portion. A point inside the treatment portion is proximal to the treatment portion.

12. Regarding claim 26, Beaupre discloses a waveguide (figure 2) comprising a blade (28 and 26) with a distal and proximal end, and a treatment portion (26) having two cuts (38 and 40)

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that create an asymmetry. The cuts create a curved geometry. The purpose of these cuts is to counter torque created by the curve near 37 (col. 2, 35-60).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beaupre '981 in view of Huitema 6117152. Beaupre discloses all the elements of the waveguide and blade in claim 24 but does not disclose that the instrument contains a handle. However, ultrasonic tools need a location for the operator to hold, a handle. Huitema discloses a handle 30. At the time of the invention it would have been obvious to one of ordinary skill in the art to add a handle to the Beaupre device so a user could grab the tool.

14. Regarding claim 25, the Beaupre method is concerned with minimizing transverse vibrations. Beaupre states that it is object of his invention to balance the blade to minimize transverse vibrations (35-40, col. 1).

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 5346502 method of balancing a surgical blade

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US 6254623 an ultrasonic blade

US 6090120 an ultrasonic blade

US 6068647 an ultrasonic blade

US 6051010 an ultrasonic blade

US 5947593 ultrasonic knife


US 5935144 ultrasonic knife

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul A Roberts whose telephone number is (703) 305-7558. The examiner can normally be reached on 7:30-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Milano can be reached on 703-308-2496. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3590 for regular communications and (703) 305-3590 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0858.

Paul Roberts  
June 2, 2003

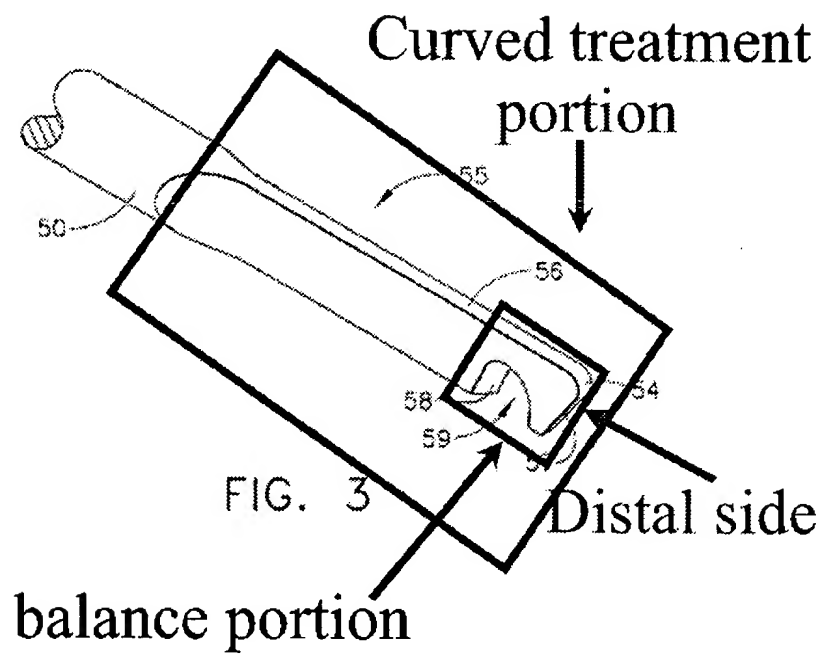


MICHAEL J. MILANO  
SUPERVISORY PATENT EXAMINER  
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For claim 21 and claim 22



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For claim 23

